

STATE OF CALIFORNIA  
Energy Resources Conservation and Development Commission

_____	)
In the Matter of:	)
	)
Application for	) Docket No. 98-AFC-1
Certification for the	)
Pittsburg District Energy	)
Facility (PDEF)	)
_____	)

Wednesday  
May 26, 1999

Boardroom, Delta Diablo  
2500 Pitts-Antioch Hwy.  
Antioch, California

The parties met, pursuant to notice, at 6:29 p.m.

BEFORE: SUSAN GEFTER  
Chairwoman

MICHAL MOORE  
DAVID ROHY  
Commissioners

APPEARANCES:

For the Applicant:

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916/653-1653

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## PROCEEDING

MR. ROHY: I'd like to begin the evidentiary hearings for Pittsburg District Energy Facility. We're here this evening to conduct evidentiary hearings on Enron's application for certification for the Pittsburg District Energy Facility.

Before we begin we'd like to introduce the committee and ask the parties then to identify themselves. I'm Commissioner Dave Rohy, presiding member of this committee and to my left, far left is Michal Moore, second member, and in the center is Susan Gefter who's the hearing officer for this case. To my right is my adviser, Bob Eller.

The parties, I'd like the Applicant to introduce themselves, if you'd use the microphone -- record here for now.

MR. THOMPSON: Thank you. My name's Allan Thompson, representing Enron. To my left is Mr. Sam Wehn, who is project director for Enron. Seated in the audience, Joe Patch, Patch International, the outside engineering consultant to the project, and Robert Ray, representing URS-Greiner-Woodward-Clyde, who is chief environmental consultant of the project. And we have our witnesses for this evening.

MR. ROHY: Thank you. Staff, would you like to introduce yourselves.

MR. RATLIFF: Dick Ratliff, counsel to staff.

MS. WHITE: Lorraine White, project manager for the commission's review of the application.

MR. ROHY: And tonight we have Roberta Mendonca, the public adviser. There's Roberta in the back, I think you all met her.

Do we have some representative of the City of Pittsburg here?

MR. \_\_\_\_\_: \_\_\_\_\_, City of Pittsburg.

MR. ROHY: Thank you. Bay area air quality district?

MR. JANG: Dennis Jang, bay area.

MR. ROHY: Did you get that name? Dennis --

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MR. JANG: Jang, J-a-n-g.

MR. ROHY: Thank you. Oh, I apologize, I skipped the intervenors, but I'll get back there in a moment. When you have bifocals minds disappear. The older folks can understand that.

Let me continue here. Delta Diablo.

City of Antioch.

MR. HALL: Jack Hall, City of Antioch.

MR. ROHY: Pittsburg unified school district.

MR. McLAUGHLIN: Yes, Reed McLaughlin.

MR. ROHY: Now I apologize, we'll go back to the intervenors. CURE.

MS. POOLE: Kate Poole for CURE.

MR. ROHY: CAPIT.

MS. LAGANO: Paulette Lagano for CAPIT.

MR. ROHY: And, let's see, I asked for the City of Antioch already, and Delta energy center.

MR. BUCHANAN: Doug Buchanan for Delta energy center.

MR. ROHY: Did I miss any intervenors?

Did I miss any members of the -- of agencies?

And anyone else care to introduce themselves?

With that I'd like to turn our hearing over to

Ms. Susan Gefter to continue the proceedings tonight.

MS. GEFTER: Going to talk about a little scheduling background before we begin. On May 7th the committee issued a notice scheduling today's hearings on the potential cumulative impacts to water resources, on air quality and on any remaining issues on public health. The hearing order stated that if the air district's final DOC were not available at today's hearing that the schedule would slip day for day after May 26th until the FDOC is docketed.

After the FDOC is docketed, the committee will issue a notice of hearing on the FDOC, and that would include the filing of written testimony. This schedule slippage requires at least two weeks for the notice period and the filing of testimony prior to the hearing.

The Applicant has previously agreed that the schedule would be delayed if the FDOC were not docketed by today. We will discuss the schedule modifications at the conclusion of the hearing.

The next comments are for members of the public that may not have attended our previous hearings, to let you know what to expect at formal evidentiary hearings. Evidentiary hearings are formal in nature. The purpose of the hearings is to receive evidence and to establish the factual record necessary to reach a decision in this case.

The Applicant has the burden of presenting sufficient substantial evidence to support the findings and conclusions required for certification of the proposed facility. The order of testimony will be taken as follows, for each topic: first, the Applicant, then the staff, then CURE, City of Antioch, then CAPIT and then Delta energy. Those are our parties. We'll address the topics in the sequence contained in the hearing order, which scheduled water quality to go first and then air quality, and then public health.

I understand that the public health testimony has not been augmented so we probably will not have further testimony on public health this evening.

We -- witnesses will testify under oath or affirmation, and they will be sworn by the reporter here. During the hearings, a party sponsoring a witness shall establish the witness's qualifications and then ask the witness to summarize the prepared testimony. Relevant exhibits may be offered into evidence at that time.

At the conclusion of a witness's direct testimony, the committee will ask other parties to cross-examine and they will be allowed to do redirect examination and also recross if necessary. Multiple witnesses may testify as a panel.

At the conclusion of each topic area we invite members of the public to offer unsworn public comment. Public comment is not testimony, it's not evidence but it may be used to explain the evidence that is in the record.

Are there any questions, as particularly from members of the public on the process this evening?

Before we begin to take testimony, I want to go over the exhibit list, which I had mentioned previously off the record, to find out if there are any corrections at this time. I had a question regarding Exhibit 40, which was the CMS study that was discussed during the waste testimony, and I, that exhibit was identified for the record but was not offered into evidence. Now that the exhibit has been docketed and distributed to all the parties, question is whether one of the parties wants to move Exhibit 40 into evidence.

MR. THOMPBDGR`@7X\_::ProgID

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w ready to begin with the topic of water quality.

MR. THOMPSON: Ms. Gefter, if I may.

MS. GEFTER: Yes.

MR. THOMPSON: Yes, the exhibit list makes a reference to Exhibit 20.

MS. GEFTER: Yes.

MR. THOMPSON: I have a copy of Exhibit 20, was submitted to the commission on February 19th. Is it your desire that I make copies of this and distribute them after this hearing, refile or did it somehow get lost, I guess, is my question.

MS. GEFTER: It may, we may not have a copy of it. Why don't we, I'll look at it later off the record and --

MR. THOMPSON: Okay.

MS. GEFTER: -- we'll see whether we need to make copies or not.

MR. THOMPSON: Okay, thank you.

MS. GEFTER: Thank you. There, as I mentioned earlier, at the conclusion of all the testimony we will discuss the schedule and we'll discuss the exhibits.

We'd like to now begin with the topic of water quality. And we'd ask the Applicant to offer his witness at this time.

MR. THOMPSON: We do not have a witness in water quality. Our, the totality of our presentation has been completed.

MS. GEFTER: Thank you. Staff, present your witness on cumulative impacts on water quality.

MR. RATLIFF: Staff witness is Joe O'Hagan.

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MR. ROHY: He's been previously sworn, hasn't he?

MR. RATLIFF: Yes.

MS. GEFTER: I don't -- did you get that?

THE REPORTER: Yes.

MR. ROHY: Would counsel like to state that in the affirmative.

MR. RATLIFF: Yes, Mr. O'Hagan has been sworn.

MR. ROHY: Thank you.

Whereupon,

JOE O'HAGAN,

having been previously duly sworn, was recalled as a witness herein, and was examined and testified further as follows:

DIRECT EXAMINATION

BY MR. RATLIFF:

Q Mr. O'Hagan, did you prepare the supplemental water resources testimony dated May 18th in this proceeding?

A I prepared portions of the testimony --  
(Inaudible.)

MS. GEFTER: Well, do you think it'd be better if we -- let's go off the record.

(Discussion was held off the record.)

MS. GEFTER: Back on the record.

You may proceed.

BY MR. RATLIFF:

Q Do you have changes to make in it at this time?

A Yes, I do. On page 3 of the supplemental testimony would be the fifth paragraph down, the sentence starts the first sentence of the paragraph says staff's evaluation of DEC's initial dilution modelling using UDKHDEN and some words were left out and it should be the finds that the modelling was.

Q Can you repeat that, Joe?

A Sure. Okay, page 3, fifth paragraph down, first sentence, staff's evaluation, the sentence starts staff's evaluation of DEC's initial dilution modelling using UDKHDEN, the words "finds that the modelling" --

Q Oh, okay --

A -- should be added, so that it'd read that using UDKHDEN finds that the modelling was very extensive and explored a wide range of critical scenarios.

Q With those changes, is the testimony true and complete to the best of your knowledge and belief?

A Yes, it is.

Q Could you explain the purpose of this testimony?

A Yes. There was concern expressed and during the proceedings that due to the Delta Diablo sanitation district providing tertiary treated effluent to both the Pittsburg District Energy Facility and the Delta energy center and receiving back wastewater from the Pittsburg District Energy Facility that concentrations of their discharge into New York slough would be increased, and that due to this increased concentrations that water quality impacts could occur to the City of Antioch's water supply intake.

If I refer people to the figure on the second page of the supplemental testimony and it's soil and water resources figure 1, and you can, on the map, the DDSD, Delta Diablo sanitation district, outfall is indicated, as well as the proposed PDEF facility and the DEC facility and then the, about two miles upriver, the City of Antioch pumping station is indicated, and that was their water supply intake.

The DDSD discharges into New York slough through an outfall which is a diffuser which is essentially a pipe with a number of ports where the water is discharged. The City of Antioch's concern specifically dealt with that, that the initial dilution occurring due to the projects would be less and that the wastewater discharge plume from the outfall would remain coherent under certain conditions and would reach the intake.

The New York slough carries water from the San Joaquin river to the Suisun bay and carries about 40 to 60 percent of the river's flow. Usually the flow is going downstream, but if you look at soil and water resources figure 2, which is sort of hard to understand, but those are flow rates from a sampling site fairly close to the Delta Diablo outfall. And as you can see, as that at some periods that the water is flowing fairly quickly downstream, but at other periods, the negative numbers, it's flowing back upstream.

So there is a number of occasions when because of tidal action the flow is back up the river and that's when the City of Antioch's water intake would be jeopardized.

The wastewater discharge from Delta Diablo will be increased in concentration. There won't be an increase in total loading from providing the two projects because they'll be using effluent that otherwise would be discharged to, into New York slough by Delta Diablo. To address the concern of how this, the wastewater discharge plume, would act, DEC, as part of their NPDES permit application, that's the national pollutant discharge elimination system permit, to the regional water quality control board, conducted modelling to try to evaluate how extensive dilution and dispersion of this wastewater discharge plume would be.

To evaluate this they had to undertake three different models. There was an initial model that looked at the discharge of the wastewater right out of the diffuser, the outfall. There was a what they call a transition model that after this initial dilution occurs there is mixing with the water and then what you would call far-field mixing which is due to turbulent flow which would be, you know, several thousand feet down or upstream, such as what you'd find at the City of Antioch's.

The City of Antioch's concerns specifically were that the concentration would be increased and what happens in initial discharge as the water leaves the diffuser is that because of the velocity of the discharge the flow forces the water up the water column and that creates a lot of mixing due to shear forces which create waves.

Also there is a buoyancy factor that the water is lighter than the water that it's being discharged into. That also helps the water rise up to the water column. So in an initial 20 to 30 feet of water there's a significant portion of mixing possible if, you know, under most circumstances, but under some critical conditions that mixing might not occur so readily and you might have a problem then with the plume travelling upstream.

The DEC modelling, as I said, undertook three different models. The initial modelling using the first model took a look at a number of critical factors that would address initial dilution. That would include your diffuser orientation, your port orientation, the variation of flows of the wastewater discharge, your density of the wastewater discharge, your ambient water density and local currents and things. And running the model, they found that for the Delta Diablo sanitation district discharge, dilution would probably be on a factor about 48 to one.

Now the modelling was run looking at a variety of what we would call critical scenarios, and we found the most critical factors would be that there would be, because of density changes and temperature in the water that there'd be stratification. So as the water's discharged from the outfall, it would not be able to rise all the way up the column and that would allow, if you will, sort of a stagnant situation and decrease the amount of diffusion.

Also they took a look at the density factor and the reductions in flow and as I said the most critical, under the most critical situations, which would be like shallow water, no currents, high discharge concentrations, that dilution was 48 to one, and generally it was several hundred to one under most conditions.

Okay, staff, Nancy Munson, the staff's expert witness on water modelling, evaluated this. She found that the initial modelling, the factors taken into account, that critical scenarios run were very extensive and felt that it was an accurate portrayal of the initial dilutions going on.

The subsequent modelling factors, the transition modelling and the far-field modelling, staff is evaluating that as a part of the Delta energy center project, and

we still have some questions about that. But in terms of addressing City of Antioch's concerns, clearly initial dilution is sufficient to ensure that there would not be impacts to the City of Antioch's water intake.

And that's consistent with the City of Antioch's witness, Dr. Faisst, at the last hearing who then which was his conclusion, that there would not be any impacts. The Delta energy center model estimates that the dilution would probably be on a factor about 350 to one by the time the water would reach the City of Antioch's intake. As I said, staff's still evaluating the transition of far-field modelling, but it's probably going to be on a factor of several hundred to one at least, and so on basis of that I conclude that there would be no significant impact to the City of Antioch's water intake.

Q Does that conclude your summary?

A Yes, it does.

MR. RATLIFF: The witness is available for questioning.

MS. GEFTER: Okay, is there any cross-examination from the Applicant?

MR. THOMPSON: None. Thank you.

MS. GEFTER: Is there any cross-examination from the -- any of the intervenors, from CURE?

MS. POOLE: No.

MS. GEFTER: From City of Antioch?

MR. HALL: No.

MS. GEFTER: From CAPIT?

MS. LAGANO: No.

MS. GEFTER: From Delta energy center?

MR. BUCHANAN: No.

MS. GEFTER: The committee?

MR. ROHY: Just like to ask a brief question. You talked about dilution factors. What is -- is there some point where a dilution factor is good, is it 10 to one, a

hundred to one? Could you give me some reference? You give me these numbers, I don't know what a good dilution factor is.

THE WITNESS: Well, it would vary with the situation. In this situation, in terms of permit limitations, Delta Diablo's limited by the regional water quality control board to a dilution factor of 10 to one, and that means that their limits are fairly high in comparison, because the -- because of the deepwater outfall, basically.

In this situation, a dilution of 48 to one is quite high, because if you looked at concentrations coming out of the outfall, the levels would be, after the dilution -- excuse me, initial dilution be reduced to background levels. So in this situation 48 to one would be very good. In situations where you had a lot higher concentrations, 48 to one might not be sufficient.

MR. ROHY: But in this case, 48 to one, in your opinion, you said was high, but tell me qualitatively what that means.

THE WITNESS: Well, you would take the concentration if --

MR. ROHY: Excuse me. Just give me a value judgment; is that good or bad?

THE WITNESS: In this situation it's good.

MR. ROHY: Thank you.

MR. MOORE: I have a context question for you, and that is --

THE REPORTER: Sir, these mikes are very insensitive until you get right up to them.

MR. MOORE: Question of context for you and that is if you compared this discharge to what we might see in stormwater runoff --

MS. GEFTER: I'm sorry, he can't hear you.

MR. MOORE: Is it on?

(Discussion was held off the record.)

MS. GEFTER: We'll go back on the record.

MR. MOORE: I don't have a question.

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MS. GEFTER: My question to the witness is what is the background level of dilution at this point if that can be determined at the outfall and at the point at which the City of Antioch has their water intake?

THE WITNESS: Okay, the modelling conducted by the consultant for the Delta energy center identified under worst-case situations, I believe the number was 48 to one for initial dilution, and then at the City of Antioch's water intake it would be 350 to one. Staff's evaluation, as I said, you know, we concur with the initial dilution. We don't have a number for what would it be at the City of Antioch but we're comfortable that the dilution would be sufficient that there'd be no impact to the water supply.

MS. GEFTER: Is there any other question of the witness?

Cross -- redirect?

MR. RATLIFF: At the appropriate time I need to be reminded to try to move this into evidence as an exhibit, whenever you --

MS. GEFTER: We can identify Mr. O'Hagan's supplemental testimony on water resources as Exhibit 42.

(The document referred to was  
marked for identification as  
Exhibit 42.)

MS. GEFTER: And if you'd like to make a motion to move it into evidence we'll hear that motion now.

MR. RATLIFF: I do move.

MS. GEFTER: Does the Applicant have any objection to Exhibit 42 being admitted into evidence?

MR. THOMPSON: None.

MS. GEFTER: Do any of the intervenors have any objection to Exhibit 42 being admitted into evidence?

Hearing no objection, Exhibit 42 is now admitted into the record.



(The document referred to,  
having been previously marked  
for identification as Exhibit  
42, was received in evidence.)

MS. GEFTER: The witness may be excused.

THE WITNESS: Thank you.

(Witness excused.)

MS. GEFTER: Before we go on to take evidence on the issue of air quality, we have acknowledged Mr. Reed McLaughlin who is here from the Pittsburg school district, and we're going to let him make his public comment at this point in the proceeding, because I understand he has to leave, and then we'll go on to air quality. The conclusion of air quality we will hear from other members of the public.

Mr. McLaughlin, if you could come forward and get next to a microphone, make your public

comment, we'd appreciate that.

MR. McLAUGHLIN: Hello. Thank you. I'm Reed McLaughlin with the Pittsburg unified school district. I believe you've received a copy of a letter from Dr. Newell, the superintendent of Pittsburg unified. For those in the audience I left some additional copies on the seat that I just vacated, if you want a copy.

Rather than spend time with microphones that may break down or leave usefulness soon, I will highlight the letter and also not bore you with my reading. But basically the superintendent received information that he feels misrepresents the impact of the Enron project on the school district, Pittsburg unified school district, that is. The truth, as he says in paragraph 4, the simple truth is that Pittsburg unified school district is

over capacity. The district's 1998 developer fee justification study, table 6, facility capacity attached, clearly shows that the district enrollment is over capacity at the elementary level and at capacity at the secondary level.

The fact that the Pittsburg schools are overcrowded is also supported by the California state's enrollment certification project report that provides data on the school district's qualifying for SB-50 funding. The state in that the state recognizes the district's facilities are overcrowded.

The last paragraph, the staff reports that the energy commission has a pre-emptive authority over local laws. The Pittsburg unified school district thereby requests that the energy commission exercise its pre-emptive authority and postpone any decision and allow the district to put into testimony correct information on enrollment and potential impact of the project to the district.

We believe that the information included in the report, we actually would encourage you to add that some additional information or analyze it again or whatever it may take to update, bring current or make correct what we believe is incorrect information at this point.

Some simple facts for the last five years that I quickly checked, including this year, district has bought, purchased, added to the campuses double-digit portables, number of portables. That's been to address the shortage of enrollment capacity at all the sites throughout the district. We anticipate the coming year will have a like need. In the future years it's going to do nothing but increase, and we feel that we would like you to re-evaluate the impact on the school district.

Thank you.

MS. GEFTER: Thank you very much. As you understand, your comments to us this evening are public comments and the --

MR. McLAUGHLIN: -- school district is not a party to this proceeding and thus would have no standing to request that the proceeding be suspended in any way. However, if these questions appear to be issues between the City of Pittsburg and the

school and not necessarily issues that are before the energy commission, if you have some evidence or some information regarding the expectation of an influx of workers moving to the area, we'd like to hear about that, because that was not the evidence we heard.

MR. McLAUGHLIN: Okay, I'm not prepared to do that. Stated in the report it talks about our capacity for growth or handling additional students, and those may be related to the families that they'd be moving into the area. I'm simply stating at this point we are at capacity, over capacity, and would ask that you direct or request staff, appropriate staff, to work with the district to come up with what I feel would be correct information regarding the impact any additional families in the community would put on the district.

And I understand the procedure, learning very quickly this evening, and I appreciate the opportunity to be here. Again, it's more of a request, knowing that it's not a place to demand and pass the testimonial portion. But again, just asking the commissioners to consider asking for some additional information to be added to the report that we can provide at a later date and assist staff, your staff, to accumulate that.

MS. GEFTER: You can work with our public adviser on that. Thank you very much.

MR. McLAUGHLIN: Thank you.

MS. GEFTER: Our next topic this evening is air quality and if we're ready to proceed, like the Applicant to introduce their witness, please.

MR. THOMPSON: Thank you very much. We have three witnesses in the area of air quality. First witness I would like to call is Ms. Joan Heredia. Ms. Heredia has not been sworn.

Whereupon,

JOAN HEREDIA,

having been first duly sworn, was called as a witness herein, and was examined and testified as follows:

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**DIRECT EXAMINATION**

**BY MR. THOMPSON:**

Q Would you please state your name for the record?

A My name is Joan Heredia.

Q And you the same Joan Heredia whose prepared testimony is contained in Exhibit 30 and 32 in this proceeding?

A They are.

Q And you are the same Joan Heredia who is sponsoring today Exhibit 1, sections 5.2, 5.2.6, appendices I and J, Exhibit 2, air quality responses to staff data requests 1, 2, 7, 8, 9, 10, 11, 12, 13 and Exhibits 3, 7, 14 and 25; is that correct?

A That is correct.

Q Do you have any corrections, additions or deletions to make to any of that material?

A Not at this time.

Q Would you please briefly summarize your air quality testimony for the commission?

A Sure. My name is Joan Heredia, I work for URS-Greiner-Woodward-Clyde. I'm the air task leader for the Pittsburg District Energy Facility. I prepared substantial portions of the air quality analysis or oversaw portions of the analysis. The, as far as the project goes, contains ambient air quality modelling which indicates that the impacts from the facility are below significance levels and in compliance with all LORS.

At this time I would say that we've tried to work, that the Applicant has tried to work very diligent with the CEC staff, EPA and the bay area air quality management district to try to resolve all issues on the table, and we feel, in most instances we've try to err on the side of conservatism and try to adopt suggested measures by the CEC staff and also by the EPA as well.

Q Have you seen a draft copy of the district's final DOC?

A I have seen that FDOC.

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Q And have you discussed that document with the staff?

A The CEC staff?

Q Yes.

A Yes, I have.

MR. THOMPSON: That's all we have as far as further direct. Ms. Heredia's tendered for cross-examination.

MS. GEFTER: Does staff have cross-examination of the witness?

MR. RATLIFF: No.

MS. GEFTER: Does CURE have cross-examination of the witness?

MS. POOLE: No.

MS. GEFTER: City of Antioch?

MR. HALL: No.

MS. GEFTER: CAPIT? Delta energy? Committee? Have questions of the witness.

I wish, would you summarize your testimony for us? The -- in a very, you know, general way, what you found that would indicate that the project would have insignificant impacts to the air quality in the area?

MR. ROHY: And excuse me, before you start would you bring this microphone a little closer to you also, you need both of them. The small one is for recording, the large one's for amplification, okay.

THE WITNESS: Typically, air quality analysis, there's several portions to it. One of the portions is where you quantify the actual anticipated emissions from the facility. This particular facility, we attempted to provide numbers which we felt were valid, real, supported by information we obtained from manufacturers and also conservative in the sense that we felt that the facility could satisfy those emissions and proposed emissions contained within the AFC.

Those emissions are then utilized to -- one other thing. One of the other key components in the ambient air quality analysis is the adoption of best available

control technology. For this particular facility, coming into the proceedings and the original filing of the AFC we proposed at that time what we knew was best available control technology. As the commission may be well aware, there's been a lot of movement in this area as of late in regard to what is, what constitutes best available control technology, and there's been quite a bit of technical discussion during the courses of the proceedings.

We did file supplemental testimony where originally in regard to NOX we were at 3.0 parts per million and we came down to 2.5 parts per million. We have subsequently received some comments from EPA indicating that they will accept the 2.5 parts per million but whereas we have suggested we would want that on a three-hour average they have suggested a one-hour average. We are currently in negotiations and I think maybe Dennis could speak, Dennis Jang from bay area, could speak as well. That looks like we are going to reach agreement with EPA in the very near future which would provide us some language which would allow us during load-following, load-transient conditions and other transient conditions which may impact the ability to achieve the 2.5 that the facility may have some relief and be able to, over a 24-month period, demonstrate what can be done to try to minimize any sort of excursions from the current proposed BACT.

So that's best available control technology for NOX.

The VOC best available control technology was also raised as an issue by the EPA in recent comments and we have subsequently addressed their issue. They had requested that possibly one part per million might be reflective of BACT for VOC, and we went back and worked with the turbine vendors to get a guarantee of 1.4 part per million, so we're in substantial agreement there as well.

In regard to PM-10 and SOX it's basically the use of clean-burning fuels, which is what we intend to use. And in regard to CO, the Applicant has proposed to use a CO catalyst which as EPA and all parties seem to accept, that is best available control technology.

The third component of the air, ambient air quality analysis is actually modelling the emissions and impact from the facility to see what sort of ambient concentrations would occur within the area surrounding the facility. That analysis is done for NOX, PM-10 and CO, VOC or not -- there's, that's not something that's typically modelled.

When we did those analyses we found that we were below ambient air quality standards in all instances, and therefore can, were able to demonstrate compliance with the national ambient air quality standards as well as the federal ambient air quality standards.

The facility also proposes to mitigate impacts by offsets and the -- very early on in the proceedings you may recall the public requested that those offsets be within the immediate project area. Woodward-Clyde has not been involved in the purchase of those credits or the analysis of those credits. I think Mr. Wehn will speak to that later this evening.

MR. ROHY: Ms. Gefter, may I ask some clarifying questions on that.

The NOX technology you mentioned you've changed during the process, and you're now claiming 2.5 parts per million NOX. Is that a tested technology in this size engine class?

THE WITNESS: The technology which will be used is an SCR. It has been demonstrated to control emissions in this size class of turbines. It has not been demonstrated to -- and maybe I should say in my mind because I feel that there may be some differing opinions -- but it has not been demonstrated at a level of 2.5, one hour, under any sort of load-following, load-transient conditions which this project made very clear would be one of the aspects of the operation of the plant.

MR. ROHY: What would your recommendation be if in fact you can't meet, the Applicant can't meet 2.5 on a one-hour or a three-hour basis? Do you believe it will in fact meet it on a three-hour basis?

THE WITNESS: I think it will be extremely difficult.

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MR. ROHY: Even on a three-hour basis?

THE WITNESS: I -- one case that always gets pointed to is the Crockett cogeneration facility, and it's our understanding that they basically have had to hire a full-time person all the time to tune their engine in order to be able to achieve their emission limitations.

MR. ROHY: Let me jump to my third item, but since you mentioned Crockett, the CO catalysts, they among others have evidence that the CO catalysts apparently are not working as predicted. What is your -- what is the Applicant's position on the CO controls and the viability of the existing controls? You said you'd use standard technology. I believe everyone's proposing standard technology. Is it working as we want it to work?

THE WITNESS: I would say first and foremost the -- we have been able to obtain manufacturer's guarantee of the six parts per million over a three-hour rolling average. I am very familiar with the Crockett case and understand that they have difficulty during load-load conditions. One aspect of this project is, is that primarily because of economics and fuel rates, heat rates, they're not proposing to operate below a 60 percent load condition. So whereas maybe some applicants who want to operate it at lower loads might have some different considerations.

MR. ROHY: How about this Applicant? Would that be a 60 percent operation or --

THE WITNESS: Based upon the information that we've received from the catalyst manufacturers for our operation, we feel that it will be able to be satisfied.

MR. ROHY: At 60 percent load?

THE WITNESS: At 60 percent. But I must add really in many ways we are in uncharted territory at this point because of some of the lower emission levels that are being requested by EPA and other agencies which are seeking to really technology-drive, drive down the technology as much as they can.



MR. ROHY: The other point I had is on VOCs. You mentioned they guarantee a 1.4 I think it's parts per million, is that what you said, does that include any VOCs coming from the lube tank and the vent of the lube tank?

THE WITNESS: My -- that is the number provided by GE and my understanding is, is that it would. I did not specifically ask that question when provided the estimate, however.

MR. ROHY: So that would be the total package that GE would guarantee, 1.4?

THE WITNESS: That is correct.

MR. ROHY: And there are no emissions, VOCs, from the steam turbine portion of that, or is that included in there also?

THE WITNESS: We have included emissions associated with the steam turbine. The facility will have a duct burner.

MR. ROHY: I was referring to VOCs, though, from perhaps the lubrication system.

THE WITNESS: Not that we have considered.

MR. ROHY: But the duct, going back, the duct burner, that you have considered that in your total counts of NOX, total pounds of CO?

THE WITNESS: Yes, and that's above and beyond the 1.4.

MR. ROHY: Yes?

THE WITNESS: Yes.

MR. ROHY: Thank you.

MS. GEFTER: Could you repeat the numbers that you had for PM-10?

THE WITNESS: I regard to pounds per hour?

MS. GEFTER: Yes.

THE WITNESS: 17 pounds per hour.

MS. GEFTER: And what does the district require?

THE WITNESS: The, from a best-available-control-technology standpoint, the district requires just that you use a clean-burning fuel that's not tied to a pound-per-hour limit.

MR. ROHY: Is the 17 pounds worst case? Or is it average, or is it low?

THE WITNESS: It's worst case. I would say it's aggressive. The turbine manufacturer, General Electric, who is providing the turbines, was somewhat reluctant to provide that guarantee, but ultimately they have provided it.

MR. ROHY: So it is your testimony that to your belief that is the worst case?

THE WITNESS: That is correct.

MR. ROHY: Thank you.

MS. GEFTER: Back to VOC, you had testified that the district is requiring one part per million, is that --

THE WITNESS: No, no --

MS. GEFTER: -- what the initial amount was?

THE WITNESS: What we had received was a comment from EPA on the district's PDOC which requested that we look at BACT. WE, the project originally also did not consider any potential emission reduction control associated with the CO catalyst, and subsequently based upon, you know, part of EPA's comments, that was considered as well, too.

MS. GEFTER: Are there any other questions of the witness? Any redirect by the Applicant?

MR. THOMPSON: One question.

BY MR. THOMPSON:

Q When you were referring to the 17 pounds of PM-10, was that on a per-turbine basis?

A That is correct.

MR. THOMPSON: Thank you. That's all we have.

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MS. GEFTER: Any cross-examination by staff?

MR. RATLIFF: Questions, please.

CROSS-EXAMINATION

BY MR. RATLIFF:

Q Ms. Heredia, in this issue of 2.5 parts per million for one hour, arose also in the Sutter case, and in that case it's my understanding that Calpine has reached an agreement with EPA on what is sometimes called an excursion corollary to the 2.5 for one hour average. Are you familiar with that language?

A I am familiar with the -- I am familiar with language that has been proposed for the high desert project and also that which was incorporated into the La Paloma PSD permit, but I've not specifically seen the Sutter language.

Q Are you familiar with its substantive provisions?

A My understanding is, is, and please, you know, if different, correct me, my understanding is, is the provisions are such that the applicant during what are called malfunction conditions would have some affirmative defense towards responding to such conditions, so that they would not be considered in violation subject to substantial penalties.

Q I take it that that does not sound like the kind of corollary or excursion language that you would find agreeable in your, in this application?

A That is correct. When I spoke with a gentleman in EPA, and this was in regard to the high desert language, his conversation with me was that it was only intended to apply in very unique circumstances. For this particular facility we would anticipate that with some level of frequency we would have load changes and unsteady state conditions which we felt whereas that language was geared toward kind of an anomaly situation, we would need some sort of readdress on our emission limitations for what we would consider almost typical-type operations.

MR. RATLIFF: Thank you.

MS. GEFTER: Are there any questions from any of the intervenors?  
From CURE?

MS. POOLE: No.

MS. GEFTER: From City of Antioch? CAPIT? Delta energy?

Witness may be excused.

THE WITNESS: Thank you.

(Witness excused.)

MS. GEFTER: We will now ask staff to present their witness.

MR. RATLIFF: Staff witness is --

MR. MOORE: Wait, they have two more witnesses.

MR. THOMPSON: We have --

MR. RATLIFF: Oh, that's right.

MR. THOMPSON: -- do you want us to finish ours up or --

MS. GEFTER: Yes, I'm very sorry.

MR. THOMPSON: Applicant would like to call

Mr. Sam Wehn. Mr. Wehn has been previously sworn.

Whereupon,

SAM WEHN,

having been previously duly sworn, was recalled as a witness herein, and was examined  
and testified further as follows:

MR. THOMPSON: I would remind you you're still under oath, Mr.  
Wehn.

THE WITNESS: Yes.

#### DIRECT EXAMINATION

BY MR. THOMPSON:

Q Would you please state your name for the record?

A Samuel Wehn.

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Q And you are the same Samuel Wehn who has testified previously in this proceeding?

A Yes, I am.

Q And today in the area of air quality you are going to sponsor Exhibit 1, section 5.2.6 on emission offsets, the Applicant's response to staff data request 2, air quality, no. 14, Exhibit 17, Exhibit 19, Exhibit 20 and Exhibit 23; is that correct?

A Yes, it is.

Q And all of those exhibits refer to the offset package with the exception of Exhibit 20 which talks about the ability of a pollution control technology called SCONOX; is that correct?

A Yes, it is correct.

Q Do you have any corrections, additions or deletions to make to any of your material?

A No, I do not.

Q Mr. Wehn, if I could ask you a couple questions with regard to the lack of a final DOC to give the committee background on where we stand today, allow me to do this,

Mr. Wehn. Number one, in the area of the information that Application provided to the bay area, do you recall when Applicant changed its application and submitted new modelling that would reflect the lower stacks, the turned plant and the lower emission rates?

A Yes, that was December 7th, 1998. We filed a supplement to the application for certification.

Q And that was reflected in the preliminary DOC of March 19th?

A That is correct.

Q Approximately 100 days later?

A That is correct.

Q Now with regard to the emission offset credits, the -- if I get this wrong correct me -- Quebecor credits --

A Yes.

Q -- do you have any news about those?

A Yes, the 30-day public comment period ended yesterday, close of business yesterday, and it is my understanding from the bay area AQMD that those are being processed into the bank.

Q With regards to the Owens-Brockway credits, would you tell us when you asked the district to process those out for public comment?

A Yes, after we closed our deal in February with Owens-Brockway, I requested through one of my consultants to ask the bay area AQMD to send those credits out for public, 30-day public comment. That was in February. I received a letter from the district counsel, Robert Kwong. That letter came on March 4th, and in that letter he stated that they -- those credits, he listed the quantities and constituents, that they would go out for public comment, and that they would be returned within 45 to 60 days from March 4th. He was very specific.

MR. THOMPSON: We have copies of this letter if it would help the record to put it in. If I could have marked Exhibit --

MS. GEFTER: It would be Exhibit 42.

MR. THOMPSON: Forty --

MS. GEFTER: 43.

MR. THOMPSON: -- 43.

MS. GEFTER: Is it 43.

(The document referred to  
was marked for  
identification as  
Exhibit 43.)

MS. GEFTER: Applicant is distributing the copies of Exhibit 43 to the committee and also to the parties.

THE WITNESS: Then on March the 10th I sent a letter to the district and asked them to evaluate my strategy, my package, the emission offset package.

On the 17th of March they returned a positive response that my package was acceptable and that the SOX credits that I was going to use to transfer to PM-10 was acceptable to the district.

BY MR. THOMPSON:

Q Is that the -- is this letter dated March 17 on bay area?

A Yes, it is.

MR. THOMPSON: If I may have this letter from the BAAQMD marked Exhibit 44?

(The document referred to was  
marked for identification as

Exhibit 44.)

MS. GEFTER: Applicant is distributing a copy of Exhibit 44 to the committee and to the parties.

Exhibit 44 is dated March 17th.

THE WITNESS: Want me to go on?

After that there were various workshops and a conference call workshop that was held on April 26th, 1999, and that was attended by, of course, conference call over the telephone, by all the intervenors and the participants. And in that workshop was the first time that the Applicant was notified that the Owens-Brockway credits had not gone out for public comment.

BY MR. THOMPSON:

Q What was that date, I -- please?

A April 26th, 1999.

Q And could you give us the date that they actually made publication?

A May 6th, 1999.

Q So there was actually two months and one day, two months and two days, between the time you received a letter that said they were going for publication and when they were actually going for publication?

A That is correct.

Q Now one other area. When, on the April 26th date when you realized that the offsets were not going out for credit, out for public comment, did you adopt an alternate effort to obtain sufficient offsets so that the project would go forward on time?

A Yes, I did.

Q Would you please describe what you did?

A Immediately consulted some others to go out and look for credits within this, with the bay area AQMD and on May 6th I made a formal offer to buy all the balance of those credits or the replacement credits that should have gone out for public comment.

Q And did you complete that effort?

A I did not.

Q And why not?

A Because I received information that the EPA had drafted a letter dated May 13th. It was an unsigned but was a draft copy of a May 13th letter that indicated that they were now in concurrence with issuing the FDOC in advance of banking these credits, and that was happened to be the issue that they brought up in a letter that they had filed on the preliminary determination of compliance.

So what I'm suggesting is that this letter, this draft letter dated May 13th, was a letter that retracted their original position, and they said they would be willing to let the FDOC be issued and then follow that with the banking of those credits.



Q The -- finally, Mr. Wehn, the letter of the 13th, did you confirm that that's what the letter meant with conversations with counsel and conversations with other entities?

A I talked to my counsel who had conversations with the bay area AQMD as well as the EPA and that he confirmed with me that this letter was in fact what everybody was willing to agree to.

MS. GEFTER: Which letter are you referring to now? If you can identify that.

THE WITNESS: You want to enter that --

MR. THOMPSON: I don't have --

MS. GEFTER: Off the record, please.

(Discussion was held off the record.)

MS. GEFTER: Back on the record.

MR. THOMPSON: Thank you, Mr. Wehn. We have, I would like to have identified Exhibit 45, a letter from the bay area AQMD dated April --

THE WITNESS: EPA.

MR. THOMPSON: -- from the United States Environmental Protection Agency, region 9, dated April 19th --

THE WITNESS: 17th.

MR. THOMPSON: -- 17th --

MS. WHITE: May 17th.

MS. GEFTER: May 17th.

MR. THOMPSON: -- May 17th, have I got this goofed up?

MS. GEFTER: Let's start over, we'll strike all of that and you identify the letter again.

BY MR. THOMPSON:

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Q Mr. Wehn, would you identify the letter that you relied on and the final letter that is in the record?

A I relied on a draft letter that was dated May 13th that was followed by -- from EPA. It was followed by a signed letter dated May 17th from the EPA that basically said the same, that provided the same information, and that was the letter that I relied on to stop my further procurement of additional credits.

MR. THOMPSON: Thank you very much. That's all we have.

MS. GEFTER: I -- we need to identify the letter as Exhibit 45. I don't believe you identified this letter, May 17th, it's from the Environmental Protection Agency, that's EPA, to Ellen Garvey at the bay area air district, dated May 17th. This is Exhibit 45.

(The document referred to was  
marked for identification as  
Exhibit 45.)

MR. THOMPSON: Thank you.

MS. GEFTER: These exhibits, 43, 44 and 45 are now identified for the record; you want to move them into the evidence?

MR. THOMPSON: Yes, I would like to move into evidence 43, 44, 45, as well as 17, 19, 20 and 23.

MS. GEFTER: Does staff have any objection to the admission into evidence of Exhibits 17, 19, 20, 23, 43, 44 and 45?

MS. WHITE: No.

MS. GEFTER: Okay --

MR. RATLIFF: No.

MS. GEFTER: -- any objection by any other party?

Hearing none, those exhibits are now admitted into the record.

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(The documents referred  
to, having been previously  
marked for identification as Exhibits 17, 19, 20,  
23, 43, 44 and 45, were  
received in evidence.)

MS. GEFTER: Are you -- is this witness's testimony complete?

MR. THOMPSON: It is.

MS. GEFTER: Staff have cross-examination of the witness?

MR. RATLIFF: No.

MS. GEFTER: Does any other party have

cross-examination of the witness?

The committee?

The witness may be excused.

THE WITNESS: Thank you.

(Witness excused.)

MS. GEFTER: You have an additional witness,

Mr. Thompson?

MR. THOMPSON: We have one additional witness. Applicant would  
like to call Mr. Joe Patch.

Mr. Patch has been previously sworn.

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Whereupon,

JOE PATCH,

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having been previously duly sworn, was recalled as a witness herein, and was examined and testified further as follows:

MR. THOMPSON: Mr. Patch, I remind you you are under oath.

**DIRECT EXAMINATION**

BY MR. THOMPSON:

Q Are you the same Joe Patch that has testified previously in these proceedings?

A Yes, I am.

Q And today in the area of air quality you are here to sponsor Exhibit 2, the responses to staff data requests 3, 4 and 5, startup emissions, construction emissions and high-efficiency drift eliminators; is that correct?

A Yes, that's true.

Q Do you have any corrections, additions or deletions to make to that material?

A No, I do not.

Q Would you please very briefly summarize what you're sponsoring today?

A Yes. In the preparation of the construction schedule, there was a construction equipment list that was developed. As part of that list, the equipment sizing and particularly the engine sizing, the emitting devices, were identified and from that practice we used in order to determine the emissions that were expected during the construction period.

On the cooling tower there was a number of discussions and based on discussions and information provided by vendors, drift rates were developed and those drift rates were tied back to currently available high-efficiency drift eliminators. That information was used as part of the air model.

Q Does that complete your testimony?

A Yes, it does.

MR. THOMPSON: Mr. Patch is tendered for cross-examination.

MS. GEFTER: Does staff have cross-examination?

MR. RATLIFF: No.

MS. GEFTER: Does any other party have cross-examination of the witness?

Committee?

Witness may be excused.

(Witness excused.)

MS. GEFTER: Is Applicant ready to proceed or shall we take a five-minute break? We okay.

MR. RATLIFF: We're ready but it's up to you.

MR. ROHY: Reporter needs a --

MS. GEFTER: Oh, what'd I say --

MR. RATLIFF: Staff, yes.

MS. GEFTER: -- staff. Does the reporter need a break? Yes, reporter needs a break. Five minutes and we'll be right on time.

We're off the record.

(Whereupon, a brief recess was taken.)

MS. GEFTER: Back on the record.

We're ready to hear staff's witnesses on air quality.

MR. RATLIFF: The staff's witness is Guido Franco.

Mr. Franco is sponsoring three pieces of testimony. First piece is dated May 14th and is titled Air Quality Supplemental Testimony of Guido Franco. The second piece is dated May 25th and has a cover letter from Lorraine White; it's titled Staff's Air Quality Comments and Response to City of Antioch and CAPIT, concerns regarding the Pittsburg District Energy Facility. And the third is that we would ask to be marked for exhibit would be a consultant's report that Mr. Franco references that was prepared for the California Energy Commission, titled A Modelling Assessment of

Cumulative Air Quality Impacts of Pittsburg District Energy Facility and other Incremental Sources, dated May 3rd, 1999. And that's by Joseph S. Scire.

MS. GEFTER: Okay --

MR. RATLIFF: It's our understanding that the testimony that was part of the March 10th staff assessment has already been entered into the record; is that correct?

MS. GEFTER: That would be part of the --

MR. RATLIFF: It was part of --

MS. GEFTER: -- Exhibit 28?

MR. RATLIFF: Yes.

MS. GEFTER: And then, yes. Exhibit 28 has not been admitted into the record; we do that at the end of the hearing.

MR. RATLIFF: Okay. That is the fourth piece of testimony then that Mr. Franco's sponsoring.

MS. GEFTER: Beginning with your proposed exhibit dated May 14th, which is the supplemental testimony, that would be Exhibit 46.

(The document referred to  
was marked for  
identification as  
Exhibit 46.)

MS. GEFTER: And the testimony dated May 25th would be Exhibit 47.

(The document referred to was  
marked for identification as  
Exhibit 47.)

MS. GEFTER: And the consultant's report would be Exhibit 48.

(The document referred to was  
marked for identification as  
Exhibit 48.)

MR. RATLIFF: Okay, Mr. Franco did you prepare -- oh, you have not been sworn, I'm sorry. The witness needs to be sworn. Whereupon,

GUIDO FRANCO,  
having been first duly sworn, was called as a witness herein, and was examined and testified as follows:

DIRECT EXAMINATION

BY MR. RATLIFF:

Q Mr. Franco, we just discussed that you're sponsoring four pieces of testimony. You prepared three of those pieces yourself, isn't that correct?

A Yes.

Q And the fourth piece was prepared by a consultant under your supervision; is that correct?

A That's correct.

Q And could you explain what that fourth piece of testimony was and how it was, how you used it in your testimony?

A It was a cumulative air dispersion model analysis.

Q Okay.

A For the sources that were included in the cumulative model analysis. I used the information or the results of the model analysis in my testimony, in my supplemental testimony. I referenced that document in my testimony.

Q Thank you. I understand that you're going to summarize your testimony in the form of a presentation; is that correct?

A That's correct.

Q Is your testimony true and complete to the best of your knowledge today?

A Yes, it is.

Q Could you then do your summary?

A Yes. The only thing is that the condition-of-certifications, I mean, the -- our proposed condition of certification including our supplemental testimony, I mean, they were based on the preliminary determination of compliance.

Q Yes.

A And the, I mean, there are going to be subsequent changes in the final determination of compliance we have to, so, I mean, there are going to be changes to the conditions of certification that we will propose at the end.

Q So the conditions in your testimony would change to reflect the changes in the final DOC?

A Yes. Okay, having also some, identified some mistakes in the conditions that came with the preliminary determination of compliance, they're all going to be corrected in the final determination of compliance.

Okay, in my presentation I will address the following topics: first, I will start with environmental setting, then I will talk about the project's emission levels and this, and the associated air quality impacts; then I will move to a brief discussion about laws, ordinance, regulations and standards. That will be followed by a discussion about mitigation and will, I will end with a -- with my conclusions.

With respect to the environmental setting, I will present information that's already in my testimony that there has been a general improvement in air quality in the Pittsburgh area. Also I will address the issue of the adequacy of the existing monitoring stations to best represent the ambient air quality in the Pittsburgh area. And we'll also talk about expected future conditions, ambient air quality conditions, in the Pittsburgh area.

With respect to air quality trends, the graph presented in the overhead shows that the ambient air quality conditions in the Pittsburgh area has improved. For example, the upper curve, the upper line is for particulate matter, PM-10. As you can see, there has been a decline in PM-10 concentrations from the beginning of the 1990s and ending in 1998. Another example is CO that has been decline and there has been a



reduction of more or less 32 percent in CO concentrations. It's not clear in the graph because of the problems with the scale, but, I mean, from the beginning of 1990 to in just a period of eight years there has been substantial reduction in CO emissions.

The same is true with respect to sulphur dioxide, SO-2, and with NO-2. The reason for this is the continued implementation of air quality management plans and the continued implementation of rules and regulations that have been adopted to reduce emissions from the mobile sector.

Now talking about the issue of the adequacy of the existing monitoring station, I am addressing this issue because there has been some concern raised about the how good are the monitoring station in representing the ambient air quality in the Pittsburg area.

I would just discuss two of the most important pollutants, nitrogen dioxide and PM-10. With respect to nitrogen dioxide, I mean, there is a monitoring station located in Pittsburg. Nitrogen dioxide is both a primary in sense that combustion sources make directly NO-2, but also is a secondary pollutant because nitrogen oxides, NOX emissions, more or less 90 percent is NO and only 10 percent is NO-2. So the 90 percent of NO has to react in the atmosphere to, and to be oxidized to be converted to NO-2.

So therefore NO-2 is also a secondary pollutant. And what we know about secondary pollutants is that they usually have a more uniform geographical distribution.

In addition the station located in Pittsburg complied with federal regulations that are designed to locate a monitoring station in a site that will give a good indication of the ambient air quality in the -- in a given area. In this case, the Pittsburg monitoring station is supposed to be, well, what is called a neighboring, neighbor-type station. That means that the concentrations especially in Pittsburg should be measuring, that this monitoring station should be representative of any area that goes from .5 to four kilometers around that monitoring station.

So, I mean, that's a, so this is again, I mean, this also suggests that the monitoring station located in Pittsburg will represent the ambient air quality conditions in the entire, at least in the entire city.

Also as if we look at the concentrations, NO-2 concentrations, measured in the bay area, and here we have the -- in red we have the maximum concentration measured in Pittsburg; in blue we have the ambient air concentration for measured in maximum ambient concentration measured in different air basins. What we find is that the measured concentrations in Pittsburg are on the low side, they are lower than what is usually measured in other basins.

And in addition the, I mean, on top of the bar that corresponds to the monitoring station for Pittsburg, we have the maximum measured concentrations in the entire San Francisco bay area, and what we find is that even though there is a difference, the difference will not be enough to, I mean, in other words, if we use the -- if we have used the worst NO-2 concentration measured anywhere in the bay area, we will still have reached the same conclusion, that will indicate later on that the project will not produce a violation of the NO-2 ambient air quality standards.

With respect to particulate matter, particulate matter is not measured in Bethel Island, I mean, it's not measured in Pittsburg. There are two monitoring stations, one located in Bethel Island and the other in Concord. Again, in this case when we have high ambient PM-10 concentrations, especially in the wintertime, 40 percent of that concentration is due to PM-10 nitrate. PM-10 nitrate is also a secondary pollutant and we have what we have found or what difference they have found is that nitrates are very well distributed, uniform distribution in a really wide area.

For example, in a study conducted in the San Joaquin valley, have shown that nitrate concentrations during high PM-10 events is practically uniform in the entire south part of the San Joaquin valley.

Now with respect to concentrations, PM-10 concentrations in the bay area, what we found is that the maximum concentration measured in the San Francisco bay

area is the second, the bar below the red one that identifies the concentration measured in Bethel Island. What we find is that there is not too much difference, I mean, even again, even if we had used the maximum concentration in the -- measured in the San Francisco bay area, the -- as representative of the Pittsburg area, I mean, we still would have reached the same conclusion.

Finally, another reason why we think that the monitoring station in Bethel Island or Concord will be representative to, of the Pittsburg is that the concentrations in urban areas are expected to be similar, both because of the issue of nitrates but also because about 30 to 40 percent of the measured PM-10 are usually on, originate from the burning of wood in fireplaces. And that's, and has been found to be more or less uniform in the different areas, especially in the, I mean, especially when we're talking about urban areas, the Contra Costa county, that, I mean, that would be the case in Concord.

I mean, I think again will give us a good indication of the ambient air concentrations that will be measured in Pittsburg. So to summarize this, we believe that the existing monitoring stations give us a good indication of the background concentration that will have, that will be representative of the Pittsburg area.

Now with respect to future ambient air quality conditions, we have, I mean, the bay area air quality management district has, well, what is called air quality management plans, and the air quality management plans are designed to reduce emissions, are designed to reduce emission until the area achieve compliance with the ambient air quality standards. The, I mean, for just to give you an example, by 2010 we expect that NOX, nitrogen oxides emissions, will go down by about 30 percent. So the same thing that we saw the last 10 years happening for the next 10 years.

There are also voluntary programs to address again the issue of the high impacts from woodburning, that is, the spare-the-air-tonight, that is a voluntary program, I mean, we're not sure of the bay area air quality management district may not have a, I mean, hard numbers to indicate how well the program is working or how well the

program will work. However, still is an educational program that I think will address the issue, at least in part, of high impacts from woodburning.

So in summary, I think what we expect to happen in the Contra Costa county and in the Pittsburg area is that we will see continued decrease in ambient air concentrations in the future.

With respect to emission levels, the emission levels, I think we have two issues here. One is the permitted levels and the expected levels. The permitted levels are the levels that are in the, of course, in the permit, and they are the worst-case emission levels because the Applicant cannot exceed those levels. And we have in the proposed permit conditions emission, hourly emission levels, daily emission levels and annual emission levels.

The permitted levels are dominated by the assumptions used by the Applicant with respect to startup emissions. The expected levels, in my opinion, the startup emissions are likely to be much lower than the ones assumed by PDEF, and I base this assumption or this conclusion from my experience with the Crockett cogeneration powerplant and other sources.

So in general what I'm sure will happen is that the, I mean, as we have seen from other powerplants in California, the actual emissions will be much lower, or at least lower, than the permitted levels.

With respect to the air quality impact analysis, we first look at the PDEF project by itself and we found that the project would not cause a violation of the ambient air quality standards, that the direct impact of PM-10 from the Pittsburg would be on the order of three micrograms per cubic meters, is rather low. We didn't model ozone because ozone is believed to be as in part PM-10 is original problem so there are other strategies used to attack the ozone problem that would -- that's the, basically, the use of offsets.

We also look at cumulative impacts and we analyzed the PDEF project, the ex-PG&E powerplants located in Contra Costa county, and the Delta energy center.

We didn't find significant impacts and that's basically we didn't find any significant impacts for the what basically what they study, the plumes do not overlap enough to have the same area of impacts from these different powerplants.

We also analyzed the proposed truck bypass road. What we have to say about this is that this already satisfy EIR that was issued in 1992, and in our testimony what we did was to summarize the what the EIR found, that, and the finding was that it wasn't, there was not significant air quality impacts. However, the EIR identifies streetsweeping as a mitigation, and now our own recommendation would be to use PM-10-efficient streetsweeping equipment.

With respect to the laws, ordinance, regulation and standards, the preliminary determination of compliance suggests that the project will comply with the bay area air quality management district rules and regulations.

With respect to federal permits, the bay area has authority to implement the federal prevention significant deterioration, PSD, program, and the Title 5 programs. However, EPA retains final authority for Title 5 operating program. What it means is that after one year of, before one, I mean, the end of one year operation, the powerplant will have to obtain a Title 5 permit, and that time EPA could exercise its authority and make changes to the permit conditions.

The outstanding issue with respect to LORS has to do with the issue that we haven't discussed before, NOX, BACT levels and offsets. With respect to mitigation, even though the control system is part of the application, we believe that the use of best available control technology, BACT, is also part of the mitigation of the project, because reduces emissions to the maximum extent possible. And the project will use BACT for NOX, PM-10, VOC and SOX.

The PDEF will also provide offsets for this project. I will describe later on the potential offset package. We also asked the Applicant to reduce daily NOX and VOC emission limits. This is because, I mean, we believe that that was technically

feasible and also that we wanted to have a better match between the daily emissions and the offsets expressed on a daily basis.

But I think the most important mitigation, at least that I see option is the -- or, measure, I'm sorry, the -- is the startup mitigation plan. We are asking the Applicant to develop a startup mitigation plan that will be developed in consultation with the gas manufacturers, the control system manufacturers, that will generate, how should I say, any strategies to reduce emission during startups. And I think this, the implementation of the startup mitigation plan will result in substantial reductions of emission during startups.

With regard to the potential offset package, I mean, I just want to say here briefly that the Applicant, I mean, in the proposed offset package, have enough offsets to mitigate the potential increased emissions from the proposed project. The Owens-Brockway unbanked credits are generated from emission reductions occurring in the City of Antioch.

Conclusions, we cannot recommend approval of this project this time, and the reasons are clear, I mean, we have to have a valid offset package of banked offsets, hopefully that will happen the second week of June, and the bay area air quality management district must issue its final determination of compliance addressing the concerns raised by EPA, respect to BACT for NOX.

With that, I conclude my summary of my testimony.

Q Just if I could clarify one point in your testimony, Mr. Franco, concerning the bypass road, the city's EIR on the bypass road concluded that there was no significant impact; is that correct?

A Yes.

Q And does your analysis agree with that?

A Yes, it does.

Q And the reference to the streetsweeping then was a suggestion that there be streetsweeping to reduce PM-10; is that correct?

A In the 1992 EIR there is a mitigation section. The use of streetsweeping equipment was included as one of the mitigations.

Q And your concern about that was that regular streetsweeping may not be sufficient in and of itself?

A Yes.

Q And why is that?

A There had been some testing done in the south, in Los Angeles area, by south coast air quality management district, on the effectiveness of conventional streetsweeping equipment, and they have found that actually what it's doing, just recirculating the PM-10 as it, I mean, some of the PM-10 that are deposited on the ground, it actually emitted to the atmosphere if you don't use streetsweeping equipment that is able to collect the fine particles.

MR. RATLIFF: Okay, thank you.

MS. GEFTER: Are -- is your examination concluded?

MR. RATLIFF: Yes.

MS. GEFTER: With this witness, okay.

MR. RATLIFF: Sorry.

MS. GEFTER: Does the Applicant have cross-examination?

MR. THOMPSON: Just a couple questions.

#### CROSS-EXAMINATION

BY MR. THOMPSON:

Q Mr. Franco, in your conclusions page, first of all you say you cannot recommend approval at this time. As a general matter, we'd like to suggest to staff that maybe in later cases that maybe the staff rethink how this is phrased because a -- documents that go out that say we cannot recommend approval have rippling effects through corporate life and financiers and others, and maybe if in the future you could think about phrasing that a kinder, gentler way to the Applicant, we'd appreciate it.

The second dash under the second bullet about the FDOC addressing the concerns of EPA, would these concerns of EPA be addressed or could they be addressed in the Title 5 proceeding?

A I think they could. The only, I mean, that's, I mean, usually we don't want to have a permit, I mean, just a policy, that's only my understanding, we don't want to have a permit that will be changed in the future, I mean, if you could reach an agreement with EPA, that will satisfy the concerns about BACT for NOX now it would be much better for us.

Q And what really what you're referring to is the averaging time --

A Yes, exactly.

Q -- proposal of EPA and --

A And I understand that you are already working with the district and, I mean, EPA to resolve this issue.

Q Second question or area, in your supplemental testimony, and I'm afraid I missed the number --

MR. RATLIFF: 46.

BY MR. THOMPSON:

Q -- 46, I note that you have conditions of certification and verifications in there. And if you compare these to the DOC of the district I see that they're different, and is the reason that the -- is because these are draft final DOC conditions?

A No. I mean, we, I mean, the template for this is the permit conditions included in the preliminary determination of compliance, and we added, I mean, some suggested language that were marked with bold and underline. So, I mean, the only differences should be that part that we added and now are, I mean, they should be very clearly identified with bold and underline.

In addition, we also suggest some deletion of some sections of phrases in the preliminary determination of compliance, and we strike out that part. The only, I think, one thing that I forgot to mention is that one section that we didn't, by mistake, in



our May 25th supplemental testimony, we didn't identify with bold and underline was the condition 22, after the table. There are two paragraph that would act, I mean, they should have been also marked as bold and underline.

And my understanding is that this, all these changes, are being incorporated in the draft conditions included in the draft final determination of compliance.

Q So my next was going to be if you compared your conditions of certification and verification as they are here to the draft final DOC and I take your answer's yes?

A Yes. However, I mean, there are going to be some, I mean, for example, there are going to be some changes to the BACT that the averaging time, for example, for NOX, and as far as I know, yes, it should be, they should be more or less the same, yes.

MR. THOMPSON: Okay, thank you very much.

MS. GEFTER: Is there any cross-examination of the witness by any of the other parties, by CURE?

MS. POOLE: No.

MS. GEFTER: By CAPIT?

MS. LAGANO: Yes.

MS. GEFTER: Please come forward. If you could sit right next to Mr. Ratliff there and speak into that microphone.

MS. LAGANO: Want me to state my name or something, okay. Paulette Lagano, CAPIT.

#### CROSS-EXAMINATION

BY MS. LAGANO:

Q Mr. Franco, in your chart on the PM-10 average maximum concentrations  
--

MS. GEFTER: Are you referring to the overhead?

MS. LAGANO: Yes, it's the overhead.

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MS. GEFTER: And is this chart is included in the testimony.

MS. LAGANO: Yes, it is.

MS. GEFTER: In Exhibit 46.

BY MS. LAGANO:

Q Although you state that the PM-10 measured is both in Bethel Island and Concord, Concord is not represented in this chart?

A Yes, the -- if we, I mean, for our analysis we used the Bethel Island PM-10 concentrations because the concentration measured in Bethel Island are the highest concentration measured in Contra costa county. If we add here the concentration measuring in Concord it would be very close to the bar, the red bar, for Bethel Island, a little, I mean, just slightly lower.

Q So you're saying that, I mean, you're representing so many other areas there it would seem almost an oversight that Concord would not be included in your chart. But you're saying it was so close?

What I'm saying is, I mean, the reason I didn't include it, the Concord maximum concentration, is because in our analysis we used the Bethel Island concentrations. In addition, if we do include, I mean, a bar for Concord, I mean, it still will be the size of the bar will be more a little bit smaller than the size of the bar for Bethel Island because the concentration measured in Bethel Island are general the highest concentration measured in Contra Costa county.

Q Do you think that would have any -- again this is a judgment call -- relationship that Concord is so much more west of the Pittsburg and Bethel Island, would incorporate more of, let's say, Antioch as well as Pittsburg, I mean, is it, is that the reason that the concentration would be slightly different, slightly higher in Bethel Island?

A Usually the PM-10 nitrates concentrations measured in Bethel Island are higher than the PM-10 nitrates measured in Concord or other cities in the -- in Contra Costa county. And it is believed that the reason for that is that Bethel Island is more influenced by what's happening in the San Joaquin valley and Sacramento valley. So

again I think if we use Bethel Island because it's the highest concentration in Contra costa county, I think we are conservatively representing the ambient concentrations that would have been measured in the Pittsburg area.

Q Your --

MS. GEFTER: Well, for the record, we're talking about Exhibit 47, figure 2.

BY MS. LAGANO:

Q Your conclusion and your explanation of Bethel Island and the high concentration in Bethel Island to me supports CAPIT's point of view, which is that a monitoring station in Antioch would give us conclusions that would be less influenced by San Joaquin as you said Bethel Island is because it is more in the area of impact. So I disagree with your conclusion that another -- that the monitoring stations are adequate as they are, since you've already stated that Bethel Island is influenced by those areas outside of the -- of what I could, would consider the area of impact, which would greatly give us more information, I think, if they restored the Antioch monitoring station that had been there for collecting the PM-10 concentrations?

A On the other hand, what we expect, what will, I mean, what will expect to see from a monitoring station in Antioch would be lower concentrations than the concentration measured in Bethel Island. So in other words again, using the Bethel Island concentration is a word, I mean, is providing analysis that is a worst-case type of situation.

Q But had you had a monitoring station in Antioch, and in Bethel Island, I think there would have been a clearer picture? Again that's our stand.

On your slide that talks about the expected future conditions -- I don't know if you wanted to put that up or -- it's the very next one -- in it you talk about the air quality management plans having expected decrease in emissions and one of the ways is the voluntary program of spare-the-air-tonight?

A That's outside, well, I don't think it's included in the air quality management plan. The spare-air-tonight is a voluntary program, and voluntary programs were not allowed to be included in the air quality management plan, as far as I know.

Q That's why I was curious as to why it was included in --

A I mean --

Q -- your conditions?

A -- what I'm trying to say with these slides, that, I mean, we have the air quality management plan that will result in lower emissions in the San Francisco bay area, including Contra costa county, and that, and besides that there is another program that's called the spare-the-air-tonight that may also reduce in emissions from woodburning. So even if we don't consider the spare-the-air-tonight, effect of the air quality management plan will be a reduction in emissions in the, for the next at least 10 years.

In addition, the bay area air quality management plan have to generate revisions to the existing air quality management plan and those revisions for sure will result in additional reductions in emissions. Just to give you an example, the existing refineries in the Contra Costa county are going to be required to reduce emissions on the order of 25 tons per day of NOX, and that's my understanding, and in the next few years, I mean, that's a substantial reduction.

MS. LAGANO: Thank you.

MS. GEFTER: Thank you. Is there any cross-examination from City of Antioch? From Delta energy?

Redirect?

#### REDIRECT EXAMINATION

BY MR. RATLIFF:

Q Mr. Franco, the -- can you describe actually what spare-the-air-tonight is, terms of the program?

A The spare-the-air-tonight is a voluntary program where the district makes a public announcement and I believe it's transmitted by the television and radio to the public in general to let them, to let the public know that the ambient -- no, that the atmospheric conditions are propensed (sic) to increase the continued buildup of PM-10 concentrations in the ambient air. That usually happen when we have very stable atmospheric conditions, very low wind, and under those conditions the ground-level emissions are trapped very close to the ground and we have a disproportional impact from ground-level releases in ambient PM-10 concentrations.

So and again it's just an information type of program to the public to ask them to avoid using fireplaces and other woodburning equipment during those days and nights.

Q And in the winter season woodburning fireplaces are a significant contributor to PM-10 conditions in northern Contra costa county; is that correct?

A Yes, there have been some studies done and indicate that that's the case, yes.

Q And these, this spare-the-air-tonight occurs with specified meteorological conditions that include calm and stable conditions and trapped emissions close to the ground; is that correct?

A Yes.

Q Okay, in terms of earlier questions that you had concerning PM-10 in the bay area, you're familiar with PM-10 collected at monitoring stations, generally familiar with PM-10 collected at monitoring stations throughout the bay area; is that correct?

A Yes, I know -- yes.

Q And do, is there a great variation in PM-10 levels in the various monitoring stations in the bay area?

A There is some variation but the charts that I show before, I mean, indicates that, I mean, the maximum concentration measured in Bethel Island, for example, are not

too far from the maximum concentration. They are lower but still not too far that the maximum concentration measured in the San Francisco bay area.

There may be some, especially outside, I mean, there may be some variations but variations are not, I mean, on the order of, I mean, 60, 80 percent, I mean, they are, the variation is, should be small.

MR. RATLIFF: Small variation, okay. Thank you.

MS. GEFTER: Does the committee have questions?

MR. ROHY: I'd just like to clarify from a quantitative point of view what a small variation is. for that Bethel Island could you give me a number? That was hard to read on that graph.

THE WITNESS: Oh, the concentration?

MR. ROHY: The concentration number, yes.

THE WITNESS: I believe it's on the ordering of 70 micrograms per cubic meter.

MR. ROHY: 70 micrograms, and what would you suggest that the Concord maximum number would be? You said it was a small difference.

THE WITNESS: I would say will be, I mean, just as a -- I would say as an educated guess, it will be 67, 65.

MS. GEFTER: Any other questions?

MR. ROHY: I have no further questions, thank you.

Thank you.

MR. MOORE: I don't have any.

MS. GEFTER: Regarding the conditions that are proposed by staff, in the initial testimony that was contained in the staff assessment, there are a series of conditions that deal with construction, and those conditions, air quality 1 through 4, deal with fugitive dust control. Are those conditions to be incorporated into the conditions that you now included in your supplemental testimony?

THE WITNESS: Yes.

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MS. GEFTER: Where would they be located?

THE WITNESS: Just they have to be included, and they will, also part of the air quality conditions of certification.

MS. GEFTER: would they be in the final DOC as well?

THE WITNESS: Yes. I mean, no, no, I'm sorry, they wouldn't be part of the final determination of compliance, but it will be in, I mean, when we revise the permit conditions to take into account what is in the final determination of compliance, we will put all the conditions together so you will have the conditions for constructions and the conditions including FDOC in the same place.

MS. GEFTER: And do your conditions on fugitive dust control take into account the new CMS study that was submitted into evidence, Exhibit 40, which deals with the Department of Toxic Substances Control; a request was made to that department that the arsenic-contaminated soils not be capped but be used onsite, would that in any way impact the proposed conditions here for fugitive dust control?

THE WITNESS: The conditions for fugitive dust were prepared by Mike Ringer, is the person that gave the testimony on public health. So I cannot give you an answer.

MS. GEFTER: Is it staff's intention then to revise the proposed conditions based on all of the conditions that appear in the final DOC?

THE WITNESS: Yes.

MS. GEFTER: And at this point then your conditions are just proposed? Are they dependent then on what the final DOC says?

THE WITNESS: Yes, they depend of what, I mean, we'll have to modify the permit conditions to reflect what will be in the final determination of compliance.

MR. ROHY: Follow up on that. Is it true that you've seen a draft copy of the final DOC?

THE WITNESS: Yes.

MR. ROHY: Having seen that, do you expect that your conditions will vary greatly or at all from what you have stated to us tonight and in your testimony?

THE WITNESS: No, they will be the same.

MR. ROHY: Thank you.

MS. GEFTER: Are there any other questions of the witness?

Witness may be excused.

(Witness excused.)

MS. GEFTER: Does Applicant have another witness that you wish to sponsor?

MR. RATLIFF: Well, the staff --

MS. GEFTER: Staff, I'm sorry.

MR. RATLIFF: -- the staff would like to sponsor the district representative, Dennis Jang.

MS. GEFTER: Have the witness be sworn.

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Whereupon,

DENNIS JANG,

having been first duly sworn, was called as a witness herein, and was examined and testified as follows:

**DIRECT EXAMINATION**

BY MR. RATLIFF:

Q Mr. Jang, your, could you state your position with the district and your duties there, please?

A I'm a permit engineer with the bay area air quality management district. I evaluate applications for stationary sources of air pollution.

Q And have you been assigned this particular permit application?

A Yes.

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Q Is it your -- in your opinion will the offset packages for this project, are they likely to be obtained prior to the issuance of the license?

A Yes. The -- in the case of the Owens-Brockway facility offsets, the comment period will end on June 5th and we expect to issue the certificate on Monday, June 7th.

Q Do you know of any reason why that certificate would not issue?

A No.

MR. ROHY: Excuse me, could I ask the witness to put the microphone closer to your mouth, please? The top one.

THE WITNESS: Top one?

MR. ROHY: Yes, thank you.

BY MR. RATLIFF:

Q And when that certificate does issue, at that time the district will issue its final determination of compliance; is that correct?

A That's correct.

Q When that final determination of compliance is issued, will there be any changes from any -- the drafts that we've seen that are currently in circulation now?

A There will be some minor changes related to BACT for NOX as we've -- has been discussed.

Q Is that the principal change that you --

A Yes, little also be some language relating to the offsets, but it would just confirm that they are in fact banked and real offsets.

Q That would involve giving numbers to the banking certificates, the banking certificate numbers or something of that nature?

A Essentially, yes.

Q In terms of BACT, do you think that the issue of the averaging period or the excursion corollary, will that be added at, by the time that you issue your final DOC?

A Yes, it will. Any change relating to averaging period will be reflected in the final determination of compliance.

Q Would you expect the language for that final DOC to be available prior to the issuance of the DOC for interested persons to view?

A Yes. Yes, it will.

Q How much in advance do you think it would be?

A Well, that would all depend on the EPA and the ongoing negotiations.

Q Depends on how long it takes to work out the differences with EPA then?

A That's correct.

MR. RATLIFF: I have no other questions for this witness, but we offer him for those questions that you or the other parties may have.

MS. GEFTER: The Applicant like to question the witness?

MR. THOMPSON: No. Thank you.

MS. GEFTER: Does any other party have questions for this witness?

The committee?

MR. ROHY: Yes. Mr. Jang, I'd like to ask your expected schedule for completing the final DOC, understanding that the EPA is -- negotiations are undergoing, do you have some expectation of timing?

THE WITNESS: We expect to issue on Monday, June 7th.

MR. ROHY: For the FDOC?

THE WITNESS: Yes. Yes.

MR. ROHY: And are there any other factors besides the negotiations with the EPA that could cause that to be delayed?

THE WITNESS: The offset, the possibility of comments on the offsets is virtually nil, so I would say that, I mean, that is the only real possible factor, but it is not likely at all to affect --

MR. ROHY: Is there any possibility that that schedule could be accelerated?

THE WITNESS: No, the constraining factor is the public notice date of the -- public notice period closing on the 5th.

MR. ROHY: Thank you.

MS. GEFTER: You mentioned that the timing may be contingent on negotiations with the EPA. What are those negotiations concerning?

THE WITNESS: The averaging period for the NOX BACT. The negotiations are primarily between the Applicant and EPA, since the district's stand, position, is that the three-hour averaging period is BACT. So conceptually we don't have a problem with a one-hour BACT average. We're only concerned with the enforceability of the permit condition language that is, that may be finally agreed upon.

MS. GEFTER: The FDOC then would incorporate whatever agreement that the EPA and the Applicant come forward with; is that your understanding?

THE WITNESS: Yes.

MS. GEFTER: Is there a 24 -- I'm sorry, 24-month test period written into this permit?

THE WITNESS: Yes -- no, mean now --

MS. GEFTER: Could you explain that to us?

THE WITNESS: -- not now, that's --

MS. GEFTER: When the permit is issued will there be a 24-hour -- 24-month period in time in the first two years of the project's operation for review and possible modification of the BACT and other averaging?

THE WITNESS: Yes, it's in the proposed condition that's being reviewed. And that, as I understand it, that period is to allow the Applicant to operate the equipment under a variety of scenarios that may occur and develop conditions, transient conditions, that they feel would qualify for the three-hour average as opposed to the one-hour average.

MS. GEFTER: Do you understand this 24-month period to be a test period to find out whether in fact the project can meet the one-hour averaging period?

THE WITNESS: Well, in a sense I would say it's more of a period to develop protocols for what, you know, what qualifies as a transient condition, so that they know operationally where they are. It's not a -- we don't consider that officially a test period, not a -- it's not a startup, it's no longer a startup period after that period of time.

MS. GEFTER: Is this a typical condition that the district agrees to for other powerplants or other projects that have air pollution emissions to allow the project a 24-month period of time in which to find out if they can meet the requirements?

THE WITNESS: Well, we haven't in the past, but we should, you should look at it in the context of our position that the three-hour is -- satisfies our BACT requirement, and that they are under this condition are subject to the one-hour average and that this period of time is to determine conditions that would push them into the three-hour. So they're still beyond our -- still in compliance with what we would consider BACT, even during that 24-month period.

MS. GEFTER: Is this one of the issues that is being discussed with the EPA, do you know, the 24-month period?

THE WITNESS: It's, well, it's definitely part of the discussion. It is. I really can't speak to EPA's position.

MS. GEFTER: Why then would the district be willing to agree to put in a 24-month period like this?

THE WITNESS: Well, because they would still meet our limit.

MS. GEFTER: Are there any other questions?

MR. ROHY: Like to go back to a question I asked another witness. Do you have proof or evidence that any engine of this size class operating in the mode that this engine is intended to run in has in fact achieved a two-and-a-half-part NOX level on a three-hour basis or a one-hour basis?

THE WITNESS: Not that I know of.

MR. ROHY: You know of no other engine?

THE WITNESS: I haven't seen the data, you know.

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MR. ROHY: Are -- do you know of any other engine that's rumored to be meeting this class, at, in this size class I know there are some smaller engines, but has this size class engine, to your knowledge, ever been demonstrated at the NOX levels that you're -- that are being suggested in this permit?

THE WITNESS: No, not to my knowledge.

MR. ROHY: And if in fact an engine of this type cannot achieve those, what is your fallback plan?

THE WITNESS: Well, the Applicant would have to come back to us and apply to change the condition, if in fact they can demonstrate that it really is beyond the reasonable control under normal operation.

MR. ROHY: But I believe I heard you, correct me if I'm wrong, say this was BACT. What would lead you to believe this is BACT when there's no evidence that such an engine has ever been run at this level?

THE WITNESS: Well, we -- it's partially based on the vendor guarantees. We have seen engines, I don't know, the Crockett data is close, it's not at two and a half, by any means. The -- it primarily comes from the manufacturers of the turbines and the combustors --

MR. ROHY: And they supply --

THE WITNESS: -- and the advances --

MR. ROHY: Excuse me.

THE WITNESS: -- the advances that they feel they've made in that design.

MR. ROHY: And they have not supplied you with the data to give you confidence that in fact that is an achievable number?

THE WITNESS: They typically don't do that. They -- and I'm not sure that the test data, because it is test data, demonstration data in a sort of a laboratory setting, might be demonstrative of actual use, I don't know.

MR. ROHY: A second question on this. Do you believe that it's possible to measure with any degree of confidence the difference between two and a half parts and three parts per million in the exhaust of a gas turbine?

THE WITNESS: I'm not an expert in that area. I understand there are questions as to the accuracy when you get to those lower levels, yes.

MR. ROHY: I believe you stated you --

THE WITNESS: Have heard that.

MR. ROHY: -- excuse me, go ahead, I'm sorry.

THE WITNESS: I've, I have heard that there are difficulties at those low levels.

MR. ROHY: Is your expertise in the permitting part of the bay area?

THE WITNESS: Yes, if I had -- I usually direct my questions regarding CEMs to our source test divisionals.

MR. ROHY: You're not in the compliance area or testing area, is that correct?

THE WITNESS: That's correct.

MR. ROHY: Okay, so I'm -- that is not a reasonable question for your expertise, then? Is that true?

THE WITNESS: That's true.

MR. ROHY: Thank you.

MS. GEFTER: Could you answer a question about the air monitor locations, that testimony we heard previously from staff's witness regarding the location of air monitors? There used to be one in Pittsburg or in Antioch and apparently that one was removed, and do you know why that was removed?

THE WITNESS: I've, I had heard that there was flooding or the station itself was in a flood-prone area, so they removed it for that reason.

MS. GEFTER: It wasn't based on its accuracy or its necessity?

THE WITNESS: Not that I know of.

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MS. GEFTER: If the EPA and the project do not come to an agreement regarding the averaging, would that prolong the time that the FDOC could be issued?

THE WITNESS: Yes, that would, potentially.

MS. GEFTER: Okay, when would you know that?

THE WITNESS: Well, within the next couple of weeks I have a feeling that the negotiations will, they will obviously continue, so we should know soon enough.

MS. GEFTER: Any other questions of the witness?

MR. ROHY: I have none, thank you.

MR. RATLIFF: I do.

MS. GEFTER: Yes.

MR. RATLIFF: Please.

BY MR. RATLIFF:

Q Mr. Jang, when you talked about a 24-month trial period, were you referring to startup emissions or were you referring to something else?

A I was referring to the NOX concentration during non-startup, non-shutdown operation that's being currently negotiated between the Applicant and EPA. There are two 24-month periods. There is a 24-month period for determining startup and shutdown emission rates and then there's a 24-month period for ongoing operation.

Q The 24-month period for ongoing, is that in the current preliminary DOC?

A No. No, this issue has come up since the PDOC was issued.

Q So that language is not currently in the record then?

A No, it is not.

Q But you're contemplating such a condition in the final DOC?

A That's correct.

Q I see. Is EPA in support of such a condition or do you know yet?

A I don't know, I can't speak to that.

Q You have another 24-month trial period that has to do with startup emissions; is that correct?

A Right, correct.

Q Separate set of conditions, then or --

A That's --

Q -- a separate condition?

A -- that's, yes, totally separate.

Q And is it possible for the district to issue a final DOC with BACT as determined by the district? Does the district have the power or the authority --

A We --

Q -- to issue the permit with its definition of BACT in it?

A Yes, as I -- we have -- we determine BACT as a local permitting authority. EPA has comment and review powers, I suppose.

Q Does this district determination, if the district decides that BACT is a three-hour average, whatever it does decide, if EPA doesn't like that determination or that permit condition, what is their recourse?

A Well, they, we have PSD authority and so they would not be issuing a PSD permit for the facility, and as was stated earlier, that the Title 5 permit is a possible avenue for them to comment again on monitoring issues; could be argued that the averaging time is a monitoring issue.

Q So is it the case then that you could issue your final DOC with what BAAQMD considers to be the appropriate condition, say, three-hour averaging, for instance? And then ultimately later EPA could require the Applicant to meet a different standard through its Title 5 permit; is that correct? Its PSD permit?

A It's possible that, I mean, the Title 5 program is -- we have not issued that many permits under Title 5, so, you know, our interaction with EPA on that basis is limited so far. But it's -- they can comment, they do comment on our permits. We have made changes to permits based on those comments, Title 5 permits. I don't know of any example that was related to an averaging time for NOX but we have changed conditions.



Plus they -- I really can't speculate, I don't -- not, I don't really know what they could do.

MR. RATLIFF: Okay, no other questions.

MS. GEFTER: Well, that leaves your earlier answer confusing where I asked you whether the negotiations between the EPA and the Applicant on the averaging issue were to continue or not be resolved for quite a while, that would delay the FDOC, and you said yes, it would. And now --

THE WITNESS: Well, we --

MS. GEFTER: -- you answered to the staff's questions, you're saying that you could issue the FDOC notwithstanding what the EPA wanted?

THE WITNESS: Well, I think that if we are close to resolving this issue and coming to a conclusion, a permit condition that satisfies EPA and Enron, then we would certainly include that, we wouldn't, you know, circumvent that whole process and just go ahead and issue it. We'd want to integrate that into the permit.

MS. GEFTER: Any other questions of the witness? Applicant?

MR. THOMPSON: Thank you.

#### CROSS-EXAMINATION

BY MR. THOMPSON:

Q I hate to keep on the same topic, Mr. Jang, but EPA commented on the preliminary DOC, and in your draft, your final DOC, you took EPA's comments into consideration and did not change the BACT level for NOX; is that correct?

A That's correct.

Q And you'd be willing to make this change, the change that EPA wants, if Applicant came to you and said make the change and we've got some excursion language that we feel protects us, but you wouldn't change it unless Applicant asked; is that right?

A That's correct.

Q Have you seen the language that's being developed as we speak, I think they call it 21-B, which is condition of certification 21-B draft?

A Yes, I have.

Q And you've had an occasion to comment on that?

A Yes, I have.

Q And would you speculate as to whether or not we're close?

A From our point of view it would, it's an acceptable condition for the most part, and once again, because it is stricter than our BACT determination, it's more a question of whether we think it's an enforceable condition than whether we agree with the numbers.

MR. THOMPSON: I think that's it. Thank you very much.

MS. GEFTER: Thank you. The witness may be excused.

(Witness excused.)

MS. GEFTER: We're going to take a few-minutes break and go off the record.

(Whereupon, a brief recess was taken.)

MS. GEFTER: We're back on the record.

We have a Mr. Lengyel -- is that how you pronounce your name? -- who would like to make a public comment. We'd ask you to come forward at this time.

MR. LENGYEL: Yes, I'm here.

MS. GEFTER: There you are, and --

MR. LENGYEL: Yes.

MS. GEFTER: -- if you could spell your name for the record.

MR. LENGYEL: L-e-n-g-y-e-l.

MS. GEFTER: Okay, thank you. And you're welcome to --

MR. LENGYEL: All right. I have an interest in a small part of this project.

MS. GEFTER: Okay.

MR. LENGYEL: And I have a brief --

MS. GEFTER: Oh, if you could speak right into the big mike right --

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MR. LENGYEL: This one here?

MS. GEFTER: The tall one, yes.

MR. LENGYEL: I have essentially a one-page letter on the subject, and I thank you for your consideration and patience, because I know everybody's been here a long time.

The proposed truck bypass road should be deleted from this project for further study. The road has little connection to the powerplant, yet could bring significant harm to the central addition neighborhood, where I live.

The California air resources board in 1998 identified diesel exhaust particulate emissions as toxic air contaminants, and currently is sponsoring studies on what to do about this finding. In addition, the federal national toxicology program is proposing to list diesel exhaust particulates as reasonably anticipated to be a human carcinogen in the ninth report on carcinogens due out in 1999.

Kyoto University researchers in 1997 discovered a compound in diesel exhaust fumes that may be the most strongly carcinogenic ever analyzed, and the American thoracic society reported in 1999 that diesel emissions can cause a marked pulmonary and systemic inflammatory response in healthy, young humans. The natural resources defense council published a study in 1998 on diesel exhaust.

None of this was known to policymakers in 1991 when the bypass road was studied, despite an assertion to the contrary in the CEC staff assessment memorandum. To approve building this road now while other competent agencies are studying the problem would constitute reckless conduct.

Furthermore, estimates of the amount of daily traffic anticipated on the bypass road vary widely from 11,300 in the 1991 study to 6800 now and 8300 in 2010, in the powerplant's 1998 CEC application, to 3900 in your April 1999 staff assessment memorandum.

Diesels are four percent of motor vehicles, yet emit about 60 percent of particles, while the bypass road traffic will have 12 percent trucks, according to the CEC

staff assessment memo. This apparently means there will be three times the normal truck traffic concentrated on the route along two sides of my neighborhood. That would seem to violate the city's general plan on the subject, harming more homes than are benefited.

With 60 percent of the powerplant's profits scheduled to go to the City of Pittsburg, there would seem to be ample funds to relocate this bypass road to industrial lands where it properly belongs.

Please delete the bypass road from your approvals or deny any permit which includes this bypass road in its present flawed configuration.

MS. GEFTER: Thank you very much. Do you have a copy of that letter that we could put into our docket?

MR. LENGYEL: Yes, I do.

MS. GEFTER: Okay, do you want to leave a copy here with us tonight?

MR. LENGYEL: Yes, I do.

MS. GEFTER: Okay, thank you, and if you have a copy that you could give to the reporter -- do you have another copy?

MR. LENGYEL: Yes, I have several copies.

MS. GEFTER: Thank you. Well, then why don't you leave with the committee, give one to the reporter so that if he --

MR. LENGYEL: Who is the committee?

MS. GEFTER: This is us sitting here.

MR. LENGYEL: You?

MS. GEFTER: Yes.

MR. LENGYEL: Ah, okay.

MS. GEFTER: Give me a copy and if you could --

MR. LENGYEL: Thank you.

MS. GEFTER: -- give a copy to Mr. Thompson and Mr. Ratliff for the parties. Thank you.

MR. LENGYEL: It has attachments.

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MS. GEFTER: Okay, that's fine.

MR. LENGYEL: That are the basis for comments.

MS. GEFTER: Do you have another couple copies that you can give, okay, and the other thing I would suggest that you do is meet with Mr. Franco, who testified this evening on air quality. Perhaps you can discuss your concerns with him.

MR. LENGYEL: All right, I can do that.

MS. GEFTER: Okay.

MR. LENGYEL: I may try to affiliate with CAPIT on this particular aspect of this whole thing. It's really not --

MS. GEFTER: It's very late in the process at this point.

MR. LENGYEL: Okay.

MS. GEFTER: But thank you very much for your comments.

At this point we are going to move on to discussing the schedule.

MR. RATLIFF: Did you want to take the --

MS. GEFTER: We're going to do the exhibits --

MR. RATLIFF: -- do the exhibits --

MS. GEFTER: -- if you would like to do the exhibits at this point and then we can do the schedule at the end, that's fine, too.

MR. RATLIFF: Okay.

MS. GEFTER: Want to do the exhibits, that's easy, that's the easy part. Let's do the exhibits.

All right, okay, there are several exhibits that were identified and were not admitted into the record, and why don't we start with the Applicant and ask which exhibits you want to move into the record.

MR. THOMPSON: Yes, I would like to move, first of all, sponsored by Ms. Heredia, Exhibits 3, 12, 14 and 25. I'd like to sponsor Exhibit 1 and 2 that are -- contain information testified to by various parties. They are the AFC and the responses

to staff data requests, and I'd like to sponsor 30 and 32, which contain again the testimony and rebuttal testimony of various witnesses.

I would also like to ask the committee to make Exhibit 17 no longer confidential. That was a confidentiality request for offsets, and it no longer needs to be confidential. That's an exhibit that was sponsored by Mr. Wehn. And I would like a blanket admit into evidence if there's anything I've forgotten.

MS. GEFTER: All right. Well, there are Exhibits 14, 15 and -- and 15 which relate to air quality that was sponsored by the Applicant, unless you've already moved to admit those.

MR. THOMPSON: Did I miss 15? I should have said 15.

MS. GEFTER: And 14 also?

MR. THOMPSON: And 14, yes.

MS. GEFTER: Okay, is there any objection to the admission of the exhibits identified by the Applicant?

MR. RATLIFF: No.

MS. GEFTER: No, okay. Those exhibits are now admitted into the record.

(The documents referred  
to, having been previously  
marked for identification as Exhibits 1, 2, 3, 12,  
14, 15, 25, 30, and 32,  
were received in evidence.)

MS. GEFTER: Staff have any additional exhibits?

MR. RATLIFF: 28 and 29.

MS. GEFTER: Is there any objection to Exhibits 28 and 29 being admitted into the record?

MR. THOMPSON: No.

MS. GEFTER: Okay, Exhibits 28 and 29 are now admitted into the record.

(The documents referred to,  
having been previously marked  
for identification as  
Exhibits 28 and 29,  
were received in evidence.)

MS. GEFTER: I see that also Exhibit 25, unless you mentioned that earlier, sponsored by the Applicant, it's the PDOC.

MR. THOMPSON: Yes, I thought I mentioned it; if not, Exhibit 25, sponsored by Ms. Heredia.

MS. GEFTER: Does anyone have objection to the PDOC being admitted into evidence?

MR. RATLIFF: No.

MS. GEFTER: Okay, Exhibit 26 -- 25 is now admitted.

Applicant prepared rebuttal testimony dated April 19th, it's identified as Exhibit 32. Did you already move that in?

MR. THOMPSON: Yes, I did.

MS. GEFTER: Okay, so that's in.

At this point I think that all of the exhibits that had been identified previously during the course of this hearing are now admitted. And also that Exhibit 17 will no longer be marked as confidential.

MR. THOMPSON: Thank you.

MS. GEFTER: Now we will move on to the schedule for the rest of the proceeding. What is pending is the admission into the record of the final DOC. The record will be closed in all other areas except for air quality to accept the final DOC and to accept staff's final draft of their proposed conditions on air quality.

We ask the Applicant to go forward and discuss how you would like to see the remainder of the schedule handled.

MR. THOMPSON: First, I think we actually have the draft of the final conditions of certification and verification in the staff's documents, which I believe staff witness testified were virtually the same as what is contained in the bay area AQMD FDOC.

I guess, number one, I would suggest that, given that we have the content of the FDOC, that maybe we don't have to wait until we have an FDOC to continue; that you can submit a presiding members's report without it. However, I've seen what you've written, and I guess I would ask that, given the conduct of the bay area that Mr. Wehn testified to, and the fact that a two-week additional period of time for notice in conducting hearings on the FDOC would act as a burden and I suspect would not be all that helpful to the record, given that we know the conditions of certification, I would ask that the committee consider not including a two-week period of time for noticing and conducting hearings, but that a hearing be set for comments on the PMPD and that the PMPD be issued as closely after the arrival of the final DOC as possible.

There is the issue of whether or not there will be a change to the FDOC. We don't know right now whether there will be one. As all applicants in the state are looking at language that would assist them in meeting the emission criteria in various operating modes, we understand that Sutter, high desert, La Paloma, all have language that is being looked at. We cannot now commit that all the agencies will sign off on this language. It may well be that our language is the preferred, maybe that somebody else's, it may be that they want different language for different projects.

We will try our best to lower our BACT level to what EPA would like, and at the same time to have supplemental, a supplemental section on excursions during various ramping modes. But I would suggest that just like Sutter is basically through the process and will have the same issue brought there for adoption, we could do the same



thing. I will commit to you that if we can get it in and have it included in the FDOC in the normal course of business, we will do that.

But I guess what I'm suggesting is that if we, in either case, that if the committee still wants to wait until the FDOC is out before submitting the PMPD, that you reconsider the two-week notice and hearing, and issue the PMPD as closely after the FDOC as possible. And then any changes that the FDOC has, we could pick up in comments to the presiding member's report.

MS. GEFTER: Thank you. Does staff have any comment on the schedule?

MR. RATLIFF: Well, only to say that, given the fact that it appears that any changes that will appear in the FDOC are quite minimal in nature, we don't see the need for an extended period of review. It's our understanding that there will probably, based on what Mr. Jang said, be a draft of this that's available that will indicate what's in it before it's actually formally released, and we would hope that the district would make that available as soon as they have it.

But I think it would seem to us it would be useful if the committee were to notice the hearing to receive the FDOC in advance of its release to reduce the amount of time that will be taken while we wait for the formality of the banking period to close.

MS. GEFTER: Okay. Just one minute. We're going to go off the record just a second.

(Committee confer.)

MS. GEFTER: Back on the record.

Okay, the committee has considered the options proposed by the parties, and we think everyone is being very reasonable about this. The original notice for this hearing was sent out on May 7th, and in that notice we indicated that if the FDOC were not filed by today, we didn't have it in the docket today, there would be a day-for-day slip in the schedule. However, based on what the parties have said tonight, that the draft of the FDOC will most likely not change once it's issued and it's anticipated that the

issuance date is June 7th, a Monday, so hoping for the best, we would then expect it to be docketed on June 8th.

In other words, if it's published on June 7th, if a copy then can go to the Applicant immediately and then the Applicant can come and docket it at the energy commission by the 8th, we could conduct a hearing on the FDOC on June 9th, which is a Wednesday. And we would anticipate conducting that hearing in Sacramento to accept the FDOC into evidence. At that hearing we would also expect that staff would incorporate all the conditions contained in the FDOC and as their final draft conditions in final form.

What that means is that we would cut out the 10 days notice of hearing, would be part of the next several weeks, and the schedule would slip about 11 days is what we figure, from today to June 9th.

Is that what -- yes, that's how we figured it. However, if the FDOC is not issued on June 7th and we -- it is not in the docket, we cannot have a hearing on it on June 9th, and so then we'll have to continue a slip. Subsequent to accepting the FDOC into evidence, the PMPD will be issued but we cannot give you an exact date, because we have to process that.

Oh, right, okay, the 11-day slip is from today to June 7th, which is the day that the FDOC will be published but -- and docket, if it's docketed on the 8th, that would be 12 days slippage, okay.

But it's in that range, and so we'll try to work with that slippage of between 11 and 12 days, if everything goes according to schedule. And again, we cannot at this point anticipate what the schedule will look like if the FDOC is not in dockets by June 8th.

Okay, but at this point we will try to issue a notice for the June 9th hearing and it will be in Sacramento. It may be, if members of the public want to attend this hearing, we're going to -- it'll probably be a short hearing and it'll be on the FDOC.

Hopefully, drafts will be available for members of the public to look at it prior to actual date it's docketed.

MR. RATLIFF: Mr. Jang has just offered to E-mail the draft to all parties.

MS. GEFTER: Thank you. Okay, that would be helpful, and the parties have any questions then they'll have an opportunity to look at the draft.

MR. ROHY: Ms. Gefter, we picked the 9th because the commission has a business meeting that day, so we expect all commissioners will be present, and especially Commissioner Moore and myself. It is a long business meeting, we know now, so that this hearing will probably be in the afternoon, not in the morning. Possibly later in the afternoon.

MS. GEFTER: All right, okay. So that would be the schedule at this point.

Are there -- upon adjourning this evening, the schedule will then be closed except for the final DOC and staff's final draft of the proposed conditions on air quality.

There any other questions?

MR. THOMPSON: First of all, we really appreciate your modification of the schedule; helps us a great deal. We recognize, I think, the restrictions, pressures, placed on all the parties and recognize, I think, and appreciate the position you're in trying to write a decision without everything being in the record and the record being closed.

For our part, we will commit to do whatever we can to -- whatever an applicant can do to make sure that the FDOC gets out on time. And indeed, if we come to an agreement on language that would accompany a reduction in the BACT level, we will seek the approval of the other parties and try and docket that early.

Lastly, we all may want to consider having the 9th hearing in a room where we can hook up a teleconference, or where there's a phone so if anyone down here wants to get on and listen to it, they may want to do that.

MR. ROHY: That's an excellent idea.

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MS. GEFTER: We'll try to arrange that.

Is there a teleconferencing location in Pittsburg?

MR. THOMPSON: We can make one available. We can probably do it --

MS. GEFTER: Okay, thank you. We'll discuss this off the record.

At this point, then, the hearing is adjourned.

(Whereupon, at 9:23 p.m., the hearing in the above-entitled matter was  
concluded.)